I. **Listing of the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

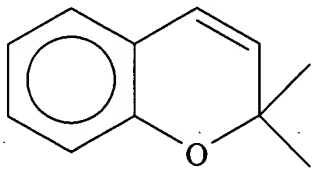
Claims 1-23 (canceled).

24. (previously presented): A method for preparing a latex with photochromic properties comprising:

preparing an aqueous emulsion (I) of a composition A comprising:

at least one organic monomer Z, wherein said at least one monomer is further defined as comprising a C=C group and being capable of free-radical polymerization, and

one or more organic photochromic compounds containing a nucleus of formula:



; and

polymerizing composition A in the presence of a water-soluble initiator to obtain particles of an at least partially polymerized latex with photochromic properties.

25. (previously presented): The method of claim 24, wherein composition A comprises only one type of organic monomer Z.

26. (previously presented): The method of claim 24, wherein composition a comprises more than one type of organic polymer Z.

27. (previously presented): The method of claim 24, wherein the latex is a fully polymerized latex.

28. (previously presented): The method of claim 24, wherein the latex is a partially polymerized latex.

29. (previously presented): The method of claim 28, further defined as comprising:

adding to the at least partially polymerized latex a second aqueous emulsion (II) containing a composition B comprising at least one organic monomer capable of free-radical polymerization; and

polymerizing composition to obtain a latex comprising at least biphasic photochromic particles.

30. (previously presented): The method of claim 29, wherein the biphasic latex is further defined as comprising a core/skin structure.

31. (previously presented): The method of claim 24, wherein the water-soluble initiator is introduced progressively to the aqueous emulsion I, during the polymerization.

32. (previously presented): The method of claim 24, wherein the water-soluble initiator and the aqueous emulsion (I) are each introduced progressively into a reaction medium throughout polymerization.

33. (previously presented): The method of claim 24, wherein the water-soluble initiator is an alkali or ammonium persulfate.

34. (previously presented): The method of claim 33, wherein the water-soluble initiator is potassium or sodium persulfate.

35. (previously presented): The method of claim 24, wherein the percentage by weight of the initiator with respect to total organic weight of monomer or monomers capable of free-radical polymerization used for the preparation of the latex is between 0.1 and 1%.

36. (previously presented): The method of claim 24, wherein the organic monomer Z is an alkyl (meth)acrylate monomer.

37. (previously presented): The method of claim 24, wherein composition A is further defined as comprising at least one monomer Z which is further defined as a low Tg monomer which leads to a homopolymer whose glass transition temperature is less than or equal to 0°C.

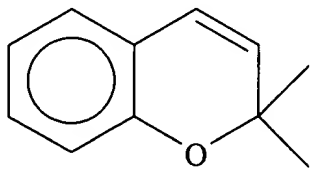
38. (previously presented): The method of claim 37, wherein the low Tg monomer represents at least 40% by weight of the monomers capable of free-radical polymerization.

39. (previously presented): The method of claim 24, wherein the particles of the latex are further defined as having a diameter of 50 to 400 nm.

40. (previously presented): The method of claim 24, wherein a dry extract of the latex represents from 30 to 50% of the total weight of the latex.

41. (previously presented): The method of claim 24, wherein the pH of the latex is between 5 and 7.

42. (previously presented): A latex with photochromic properties, further defined as comprising particles of a polymer material resulting from the free-radical polymerization of at least one monomer Z with a C=C group comprising one or more organic photochromic compound comprising a nucleus of formula:



,

the particles of said polymer material having an average size of between 50 and 400 nm.

43. (previously presented): The latex of claim 42, wherein the particles are further defined as having an average size of between 80 and 300 nm.

44. (previously presented): The latex of claim 43, wherein the particles are further defined as having an average size between 150 and 250 nm.

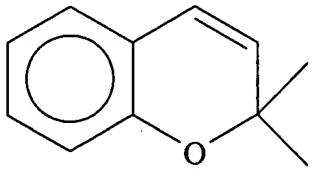
45. (previously presented): The latex of claim 42, wherein the organic photochromic compound is further defined as not containing an indoline ring.

46. (previously presented): The latex of claim 45, wherein the particles of polymer material have a biphasic structure of the core/skin type.

47. (previously presented): The latex of claim 46, wherein the organic photochromic compound is contained in the core of the particles.

48. (previously presented): The latex of claim 42, wherein a dry extract of the latex represents from 30 to 50% of the total weight of the latex.

49. (previously presented): A substrate comprising a dry latex film with photochromic properties, the latex further defined as comprising particles of a polymer material resulting from the free-radical polymerization of at least one monomer Z with a C=C group comprising one or more organic photochromic compound comprising a nucleus of



formula:

the particles of said polymer material having an average size of between 50 and 400 nm.

50. (previously presented): The substrate of claim 49, wherein the film has a thickness of between 3 and 20 μm.

51. (previously presented): The substrate of claim 49, further defined as comprising an anti-abrasion coating.

52. (previously presented): The substrate of claim 49, further defined as comprising an anti-reflection coating.

53. (previously presented): The substrate of claim 49, further defined as comprising an anti-abrasion coating on the latex film and an anti-reflection coating on the anti-abrasion coating.

54. (previously presented): The substrate of claim 49, further defined as an ophthalmic lens.

55. (previously presented): The method of claim 39, wherein the particles of the latex are further defined as having an average size of between 80 and 300 nm.

56. (previously presented): The method of claim 55, wherein the particles are further defined as having an average size between 150 and 250 nm.

57. (previously presented): The method of claim 24, wherein the organic photochromic compound is further defined as not containing an indoline ring.

58. (previously presented): The method of claim 57, wherein the particles of polymer material have a biphasic structure of the core/skin type.

59. (previously presented): The method of claim 58, wherein the organic photochromic compound is contained in the core of the particles.

60. (previously presented): The method of claim 24, wherein the latex is further defined as a dry latex film.

61. (previously presented): The method of claim 60, wherein the dry latex film has a thickness of between 3 and 20 μm.

62. (previously presented): The method of claim 24, wherein a substrate comprises the latex.

63. (previously presented): The method of claim 62, wherein the substrate further comprises an anti-abrasion coating.

64. (previously presented): The method of claim 62, wherein the substrate further comprises an anti-reflection coating.

65. (previously presented): The method of claim 62, wherein the substrate comprises an anti-abrasion coating on the latex film and an anti-reflection coating on the anti-abrasion coating.

66. (previously presented): The method of claim 62, wherein the substrate is further defined as an ophthalmic lens.